REMARKS

The Official Action dated July 30, 2002 has been carefully considered. Accordingly, the changes presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

By the present Amendment, claims 21 and 23 are amended to include a limitation from claim 24, and claim 23 is amended to stand in independent form. A Version With Markings Showing Changes Made is Attached. It is believed that these changes do not involve any introduction of new matter, whereby entry is believed to be in order and is respectfully requested.

Claims 21-30 were rejected under 35 U.S.C. §102(b) as being anticipated by the Watanabe et al U.S. Patent No. 3,663,974. The Examiner asserted that Watanabe et al teach fabrics treated with an aldehyde and a silicone softener, and that rayon fabrics are treated.

However, Applicant submits that the processes for treating textile fabric and the methods of decreasing shine due to pressing exhibited by fabrics comprising rayon fibers defined by claims 21-30 are not anticipated by and are patentably distinguishable from Watanabe et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

More particularly, as defined by claims 21 and 23, the invention is directed to processes for treating textile fabric with formaldehyde to enhance at least one property of the fabric. The processes comprise treating a fabric containing fibers selected from the group consisting of cellulosic fibers and protein fibers (claim 21) or a fabric comprising rayon fibers (claim 23) with a composition comprising formaldehyde, and grafting a silicone elastomer onto the fibers. The fabric is unresinated. In the process of claim 23, the fabric exhibits decreased shine due to pressing.

According to claim 25, the invention is directed to methods of decreasing shine due to pressing exhibited by fabrics comprising rayon fibers. The methods comprise the steps of (a) cross-linking the rayon fibers in a fabric with formaldehyde, and (b) providing the fabric with a silicone elastomer.

Watanabe et al disclose a process of treating cellulosic fiber-containing fabric. The process comprises impregnating the fabric with an aqueous liquid in an amount of 1-25%, by weight, based on fabric weight, drying the fabric to a moisture content of 3-20%, by weight, and contacting the dried fabric with a gaseous acidic catalyst. The aqueous liquid contains as the sole active fiber treating agent a compound selected from the group consisting of formaldehyde and formaldehyde-liberating compounds. Watanabe et al teach the solution comprising the formaldehyde and formaldehyde-liberating compounds may further comprise small amounts of softeners, including silicone-type softeners such as those available under the trade name "Noran Silicone Softener" (column 2, lines 50-53). The Examiner apparently asserts that the softener of Watanabe et al is an elastomer. Applicant submits however that the softener of Watanabe et al is not a silicone elastomer as employed in the present invention.

More particularly, Watanabe et al is a continuation of Application Serial No. 238,294, filed November 16, 1962, and issued on May 23, 1972. According to the article by J. V. Isharani, published in *Book of Papers*, 1982 National Technical Conference AATCC (American Association of Textile Chemists and Colorants), a copy of which was included with Applicant's previously filed Information Disclosure Statement, alkylpolysiloxanes have been used in textile dyeing and finishing operations for more than 20 years as of the date of the article (1982). Isharani further discloses that application of silicone polymers such as high molecular weight silanol endblocked dimethylpolysiloxane emulsion polymer with the monomeric cross-linker methyltrimethoxy silane as a textile finish was first made known in

1972 (page 144, right column), i.e., well after the 1962 original filing date of Watanabe et al. Isharani further teaches that such silicone polymer technology became unacceptable because of the failure to run consistently under mill conditions without forming silicone spots and because of the relatively high formulation costs with no benefits other than better durable press rating and soft handle (page 144, right column). Isharani also teaches that second generation silicone elastomer products designed to overcome the problems of the earlier silicone polymers were introduced by Ciba-Geigy in 1979-1980 (page 145, left column).

Although the Examiner appears to assert that Noran Silicone Softener is a silicone elastomer, Applicant finds no teaching or suggestion in Watanabe et al that the silicone softener of Watanabe et al is a silicone elastomer. Further, as Watanabe et al is a continuation of Application Serial No. 238,294, filed November 16, 1962, the record, including the Isharani publication, does not support an assertion that the "Noran Silicone Softener" referred to in Watanabe et al, originally filed in 1962, is a silicone elastomer. Rather, according to Isharani, crosslinked silicone polymers were first applied in textile finishing in 1972 and second generation silicone elastomers were introduced by Ciba-Geigy in 1979-1980. It is therefore submitted that Watanabe et al do not disclose use of a silicone elastomer as employed in the presently claimed processes and methods.

Moreover, Applicant finds no teaching or suggestion by Watanabe et al of a method as defined in claims 21 and 23 wherein silicone elastomer is grafted onto fibers in the fabric. Rather, Watanabe et al disclose that the sole active fiber treating agent is a compound selected from the group consisting of formaldehyde and formaldehyde-liberating compounds. Similarly, Applicant finds no teaching or suggestion by Watanabe et al of a method as defined in claim 25 for decreasing shine due to pressing in fabrics comprising rayon fibers.

Anticipation under 35 U.S.C. §102 requires the disclosure in a single prior art reference of each element of the claims under consideration, *Alco Standard Corp. v. TVA*, 1

U.S.P.Q.2d 1337, 1341 (Fed Cir. 1986). In view of the deficiencies in the teachings of Watanabe et al, Watanabe et al do not disclose each limitation of claims 21, 23 or 25. Thus, Watanabe et al do not anticipate these claims, or the claims dependent thereon, under 35 U.S.C. §102, whereby the rejection has been overcome. Reconsideration is respectfully requested.

Claims 21, 22 and 24 were rejected under 35 U.S.C. §102(b) as being anticipated by the Payet U.S. Patent No. 3,960,482. The Examiner asserted that Payet teaches fabrics treated with formaldehyde and a fabric softener.

However, Applicant submits that the processes for treating textile fabric defined by claims 21 and 22 are not anticipated by and are patentably distinguishable from Payet. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

As discussed above, Claim 21 is directed to processes for treating textile fabric with formaldehyde to enhance at least one property of the fabric. The processes comprise treating a fabric containing fibers selected from the group consisting of cellulosic fibers and protein fibers with a composition comprising formaldehyde, and grafting a silicone elastomer onto the fibers. The fabric is unresinated. Applicant finds no teaching or suggestion in Payet of such processes.

More particularly, Payet, a prior patent of the present inventor, is directed to a durable press process employing formaldehyde vapors. Specifically, Payet discloses that cellulosic fiber-containing fabrics are made wrinkle resistant by a durable press process which comprises impregnating the fabric with an aqueous solution containing a water soluble acid, acid salt or mixture thereof, and then exposing the impregnated fabric, while the fabric has a moisture content above 20% by weight, to formaldehyde vapors, and curing. Payet discloses that the treatment process comprises a relatively small amount of formaldehyde (column 2, lines 23-29) and the examples of Payet employ a softener.

However, Applicant finds no teaching or suggestion by Payet relating to a silicone elastomer or relating to a process for treating textile fabrics comprising grafting a silicone elastomer onto the fibers, particularly wherein the fabric is unresinated, as presently claimed.

As noted above, anticipation under 35 U.S.C. §102 requires the disclosure in a single prior art reference of each element of the claims under consideration, *Alco Standard Corp. v. TVA*, *supra*. In view of the failure of Payet to teach a process for treating textile fabrics comprising grafting a silicone elastomer onto the fibers, particularly wherein the fabric is unresinated, as presently claimed, Payet does not disclose each limitation of claim 21. Thus, Payet does not anticipate claim 21, or claim 22 dependent thereon, under 35 U.S.C. §102, whereby the rejection has been overcome. Reconsideration is respectfully requested.

Claims 21, 22 and 24 were rejected under 35 U.S.C. §102(b) as being anticipated by the Lauchenauer U.S. Patent No. 3,807,952. The Examiner asserted that Lauchenauer teaches fabrics treated with an aldehyde and a fabric softener.

However, Applicant submits that the processes for treating textile fabric defined by claims 21 and 22 are not anticipated by and are patentably distinguishable from Lauchenauer. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The processes of claim 21 are discussed above. In contrast, Lauchenauer discloses methods of crosslinking cellulosic fibers wherein a nitrogenous compound having a specified formula is employed. The examples of Lauchenauer employ a softener. However, Applicant finds no teaching or suggestion by Lauchenauer relating to a silicone elastomer or relating to a process for treating textile fabrics comprising grafting a silicone elastomer onto the fibers, particularly wherein the fabric is unresinated, as presently claimed.

As noted above, anticipation under 35 U.S.C. §102 requires the disclosure in a single prior art reference of each element of the claims under consideration, *Alco Standard Corp. v. TVA*, *supra*. In view of the failure of Lauchenauer to teach a process for treating textile

fabrics comprising grafting a silicone elastomer onto the fibers, particularly wherein the fabric is unresinated, as presently claimed, Lauchenauer does not disclose each limitation of claim 21. Thus, Lauchenauer does not anticipate claim 21, or claim 22 dependent thereon, under 35 U.S.C. §102, whereby the rejection has been overcome. Reconsideration is respectfully requested.

Claims 21, 22 and 24 were rejected under 35 U.S.C. §102(b) as being anticipated by the Hendrix et al U.S. Patent No. 4,396,390. The Examiner asserted that Hendrix et al teach fabrics treated with an aldehyde and a fabric softener.

However, Applicant submits that the processes for treating textile fabric defined by claims 21 and 22 are not anticipated by and are patentably distinguishable from Hendrix et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

The processes of claim 21 are discussed above. In contrast, Hendrix et al disclose a process for producing chintz fabric. Fabric is treated with a finishing composition of a silicone polymer, a catalyst and a cross-linking agent, various examples of which are disclosed and include formaldehyde and aminoplast resins. The aminoplast resins are disclosed as especially suitable (column 5, lines 56-59) and are employed in all of the examples of Hendrix et al. Hendrix et al teach that the finishing composition is applied to the fabric, the fabric is dried without curing, and the dried fabric is calendered with a heated calendar roll to form a smooth glossy surface.

In contrast, as noted above, claim 21 is directed to processes for treating fabric wherein the fabric is unresinated. Applicant finds no specific teaching or suggestion by Hendrix et al of processes for treating fabrics wherein the fabric is unresinated. The mere listing of formaldehyde as one of numerous cross-linking agents does not, with the remainder of the Hendrix et al teachings employing aminoplast resins, provide a teaching of each element of the processes of claim 21. Thus, Hendrix et al do not anticipate claim 21, or

claim 22 dependent thereon, under 35 U.S.C. §102, whereby the rejection has been overcome. Reconsideration is respectfully requested.

It is believed the above represents a complete response to the rejections set forth in the Official Action and places the present application in condition for allowance. Reconsideration and an early allowance are respectfully requested.

Respectfully submitted,

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VERSION WITH MARKINGS SHOWING CHANGES MADE

Claims 21 and 23 are amended as follows:

21. (Amended) A process for treating textile fabric with formaldehyde to enhance at least one property of the fabric comprising:

treating a fabric containing fibers selected from the group consisting of cellulosic fibers and protein fibers with a composition comprising formaldehyde, and

grafting [an] a silicone elastomer onto said cellulosic or protein fibers;

wherein the fabric is unresinated.

23. (Amended) A process for treating textile fabric with formaldehyde to enhance at least one property of the fabric comprising:

treating a fabric comprising rayon fibers, and

grafting a silicone elastomer onto said fibers;

wherein the fabric is unresinated, [according to claim 21, wherein the fabric comprises rayon fibers,] and wherein the fabric exhibits decreased shine due to pressing.

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